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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,003	12/23/2005	Toshiharu Yokota	050786	1107

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EXAMINER
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ZETTL, MARY E

ART UNIT	PAPER NUMBER
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2875

MAIL DATE	DELIVERY MODE
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09/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/562,003	Applicant(s) YOKOTA, TOSHIHARU	
	Examiner Mary Zettl	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9,10,12-18,20,21,23 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9,10,12-18,20,21,23 and 26-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 14-16 and 26, still appear in the amended set of claims even though the remarks filed on 6/26/2007 indicate that they have been canceled

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 7, 9, and 14-18, 20, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubu et al. (JP 2002-164138) in view of Murphy (US 819,702 A) and Gustavsson (DE 3217254 A).

Regarding claims 1 and 7, Kokubu et al. teach a refrigerator provided with a chamber lamp socket attached to the inside of a chamber, and a chamber lamp attached to and supported by the chamber lamp socket. Kokubu et al. further teaches the collar portion (1) being formed of a flexible material (paragraph 10, Detailed Description). Kokubu et al. further teach (figure 1) the collar portion coming into contact with the glass tube of the lamp. Kokubu et al. do not teach the presence of saw tooth shapes coming into direct contact with the glass tube of the chamber lamp. Murphy teaches the need for a mechanism for preventing the loosening of a bulb from a socket due to vibration (col. 1, lines 26-28). In order to prevent the loosening of the bulb,

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Murphy teaches a saw-toothed shape constituted by alternately forming gentle slopes and steep slopes to set a resistance in detaching the lamp to be larger than a resistance in attaching the lamp. At the time the invention was made, it would have well known to one of ordinary skill in the art that the lamps used in refrigerators are subject to mechanical vibrations. Therefore it would have been obvious to one of ordinary skill in the art to have modified the invention of Kokubu et al. such that a saw-toothed shape such as that taught by Murphy was used to prevent the lamp from coming loose due to vibrations. Murphy does not teach the saw-toothed shape being formed on the collar portion of the lamp socket and coming into direct contact with the glass tube of the lamp. Gustavsson (DE 3217254 A) teaches a lamp socket included a saw-toothed arrangement (13 and 14) on a flexible collar (1) and the saw-toothed arrangement coming into contact with the glass tube (12) of the lamp (Figure 2 and Abstract). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Kokubu et al. such that the a means for preventing the loosening of the lamp such as a saw tooth shape as that taught by Murphy was used and that this saw tooth shape gripped the glass tube of the lamp such as the saw tooth shape as taught by Gustavsson. One would have been motivated to make such a modification for the dual purposes of protecting the electrical components from moisture and preventing the bulb from becoming loose due to vibrations. Gustavsson does not disclose expressly the slopes of the sawtoothed shape being horizontal to a vertical axis of the chamber lamp. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have located the slopes horizontal to the

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vertical axis of the chamber lamp, since it has been held that rearranging the parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. One of ordinary skill in the art would recognize that the slopes still create the desired friction relationship whether they were located horizontal or vertical or at a slant from the vertical axis. In addition slopes for frictional purposes, horizontal to a vertical axis of a lamp are taught by Murphy.

Regarding claims 3, 9, 11, and 14 Kokubu et al. further teach an intermediate portion of the collar portion being provided with an annular protruding portion (1e) which is closely attached to the outer periphery of the glass tube of the chamber lamp.

Regarding claims 4, 15, and 17, Kokubu et al. further teach the use of a combustible refrigerant (Abstract).

Regarding claims 5, 16, 18, 20, 21, and 23, it would have been obvious to one of ordinary skill in the art to have driven the chamber lamp with a commercial power supply voltage in order to avoid maintenance issues with other power supplies such as batteries.

1. Claims 6, 10, 12, 13, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubu et al. (JP 2002-164138), Murphy (US 819,702 A), and Gustavsson (DE 3217254 A) as applied to claims 3, 9, 1, 7, and 14 above and further in view of Hawes et al. (US 3,915,328 A).

Regarding claims 6, 10, 12, 13, 24-26, and 28, Kokubu et al. teach the collar being made of rubber or flexible plastics and being elastic. Kokubu et al. do not

disclose expressly the flexible plastic being a polyvinyl chloride resin material. Hawes et al. teaches a frame means for connecting structural members in a refrigerator or freezer (Abstract) including a collar made of polyvinyl chloride (col. 5, line 27). At the time the invention was made, it would have been obvious for Kokubu et al. to have utilized polyvinyl chloride as taught by Hawes for the flexible plastic as it was well known that polyvinyl chloride is a material widely used because it is inexpensive, easy to assemble, and performs well in lower temperature conditions.

2. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubu et al. (JP 2002-164138) in view of Hawes et al. (US 3,915,328 A).

Regarding claim 27, Kokubu et al. teach a refrigerator provided with a chamber lamp socket attached to the inside of a chamber, and a chamber lamp attached to and supported by the chamber lamp socket. Kokubu et al. further teaches the collar portion (1) being formed of a flexible material (paragraph 10, Detailed Description). Kokubu et al. further teach (figure 1) the collar portion coming into contact with the glass tube of the lamp. Kokubu et al. further teaches the lamp socket provided with unevenness on an inner surface thereof (1b and 1e). Kokubu et al. do not disclose expressly the flexible plastic being a polyvinyl chloride resin material. Hawes et al. teaches a frame means for connecting structural members in a refrigerator or freezer (Abstract) including a collar made of polyvinyl chloride (col. 5, line 27). At the time the invention was made, it would have been obvious for Kokubu et al. to have utilized polyvinyl chloride for the flexible plastic as it was well known that polyvinyl chloride is a material widely used

because it is inexpensive, forms a good seal, and performs well under lower temperature conditions.

### ***Response to Arguments***

3. Applicant's arguments filed on 6/26/2007 have been fully considered but they are not persuasive.

4. In response to the remarks made on page 11 it is noted that Murphy is only relied upon to teach the use of a sawtoothed arranged for providing a frictional relationship between a bulb and bulb holder. The teachings of Murphy are combined with those of Kokubu et al. to demonstrate that it would have been obvious to that the use of sawtoothed arrangements in lamp sockets is well known and thus that it would have been obvious to have incorporated such a feature in the flexible holder taught by Kokubu et al.

5. In response to the question over the motivation to combine the Hawes et al. reference with Kokubu et al. it is noted that under KSR the teaching, suggestion, or motivation to combine prior art teachings may be found in the prior art, in the nature of the problem, or in the knowledge of one of ordinary skill in the art. One of ordinary skill in the art would have been motivated to combine the Hawes et al. reference due to the nature of the problem since both prior art references need to utilize components suitable for lower temperatures.

**Conclusion**

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

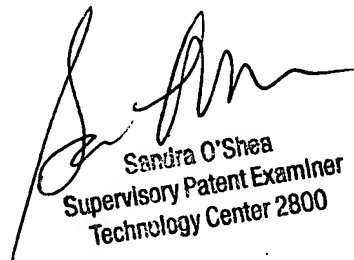
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Zettl whose telephone number is 571-272-6007.

The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

MZ  
MZ

  
Sandra O'Shea  
Supervisory Patent Examiner  
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